WHAT IS CLAIMED IS:

1. A signal for transmission in a wireless environment, the signal being communicated between a first node and a second node, the signal comprising:

a plurality of frames for transferring data from the first node to the second node; and

a frame structure coupled to at least one frame of the plurality of frames, the frame structure comprising:

an automatic repeat request (ARQ) block having a first bit length;

a forward error control (FEC) block for transmitting error control information, the FEC block having a second bit length;

a physical layer frame having a third bit length; and

an interleaver block having a fourth bit length wherein the first, second, and fourth bit lengths are each different bit lengths.

2. The signal of claim 1 wherein the physical layer frame includes multiple FEC blocks and each FEC block includes multiple ARQ blocks.

3. The signal of claim 2 wherein each ARQ block includes multiple tail bits.

4. The signal of claim 2 wherein no ARQ block includes any tail bits, and the physical layer frame includes multiple tail bits.

5. A frame structure for communicating between two nodes of a spread spectrum wireless network, the frame structure comprising one or more forward error control (FEC) blocks for transmitting error control information, each FEC block being subdivided into one or more automatic repeat request (ARQ) blocks, wherein each ARQ block includes a plurality of information bits and a plurality of overhead bits.

6. The frame structure of claim 5 wherein the overhead bits include both cyclic redundancy code (CRC) bits and tail bits.

7. The frame structure of claim 5 supporting multiple wireless environments in the spread spectrum wireless network, wherein the number of ARQ blocks is responsive to the environment for producing a relatively high throughput.

8. The frame structure of claim 5 supporting multiple information types in the spread spectrum wireless network, wherein the number of ARQ blocks is responsive to whether the information is voice or data.

9. The frame structure of claim 5 supporting a Convolutional FEC code, wherein the overhead bits of the ARQ blocks effectively block the Convolutional FEC code.

10. The frame structure of claim 5 wherein the number of FEC blocks and ARQ blocks are modifiable to balance requirements for data transmission and voice transmission.

11. The frame structure of claim 5 wherein the number of FEC blocks and ARQ blocks are modifiable to promote efficient operation depending on a wireless environment and mobile station complexity.

12. The frame structure of claim 5 wherein the number of FEC blocks and ARQ blocks, and the number of information bits in the ARQ blocks, are modifiable to accommodate different transmission rates.

13. A processing system for communicating in a personal communications service wireless network, the processing system comprising:

an interface for receiving information bits from a mobile station;

an interface for delivering the information bits to a second network;

means for arranging the information bits into a frame structure comprising one or more forward error control (FEC) blocks for transmitting error control information;

wherein each FEC block is further subdivided into one or more automatic repeat request (ARQ) blocks so that each ARQ block includes information bits and overhead bits.

14. The processing system of claim 13 wherein the overhead bits include both cyclic redundancy code (CRC) bits and tail bits.

15. The processing system of claim 13 wherein the overhead bits include cyclic redundancy code (CRC) bits but no tail bits, and wherein one or more tail bits are appended to the frame structure.

16. The processing system of claim 13 wherein the arranging means supports multiple wireless environments in the spread spectrum wireless network so that the number of ARQ blocks is responsive to the environment for producing a relatively high throughput.

17. The processing system of claim 13 wherein the arranging means supports multiple communication types in the spread spectrum wireless network, and wherein the number of ARQ blocks is responsive to whether the communication type is voice or data.

18. The processing system of claim 13 wherein the arranging means supports a Convolutional FEC code, and wherein the overhead bits of the ARQ blocks effectively blocks the Convolutional FEC code.

19. The processing system of claim 13 wherein the arranging means modifies the number of FEC blocks and ARQ blocks to balance requirements for data transmission and voice transmission.

20. The processing system of claim 13 wherein the arranging means modifies the number of FEC blocks and ARQ blocks to promote efficient operation depending on a wireless environment and mobile station complexity.

21. The processing system of claim 13 wherein the arranging means modifies the number of FEC blocks, the number of ARQ blocks, and the number of information bits in the ARQ blocks, to accommodate different transmission rates.